06:19 CDT, 12:11:19 GMT 6/3/73

PAO This is Skylab Control; 11:19 Greenwich muan time, 50 seconds to acquisition at Goldstone tracking station for what will probably be wakeup time for the crew of the Skylab space station. Another busy day again for the crew of Skylab with several medical experiments scheduled for today's flight plan and Earth resources survey run number 5 along ground track 34. Also several runs of the telescope mount solar physics experiments. We'll stand by now as the spacecraft comes across the states during the end of revolution 314.

CC Skylab, Houston; we've got you stateside for 12 minutes.

SC

Very great.

CC And be advised that sometime during this pass we're going to be dumping the data recorder.

SC Ckay.

Skylab, Houston; be adivsed we're going to command the primary coolant loop OFF, part of our normal morning powerdown procedures.

Skylab, Houston, we're going to have a short break and we'll pick you up in Bermuda.

SC Okey.

CC Skylab, Houston. We're AOS again in Bermuda for the next 5 minutes.

SC Good work.

CC How about that.

CC Skylab, Houston. We're 1 minute to LOS. We're going to see you at Madrid at 11:43.

SC Roger, Acuston.

PAO This is Skylab Control. A brief gap here between Bermuda and Madrid as the space station crosses the North Atlantic. The crew rather quiet so far this morning as they go about their postsleep activities of getting breakfast. Telemetry from Madrid is showing a 70.6 percent state of charge on the ATM batteries at this time.

CC Houston, we're AOS at Madrid for the next 9 minutes. And be advised about 1 minute or a minute and a half into the pass, we will have a keyhole about 45 seconds long.

SC Okay.

SC Hey, Richard. You got any news down there this morning? We don't know what's going on.

CC Let me see if I can drum up what's going on in the world for you all.

8L-II MC-540/1 Time: 06:43 CDT, 12:11:43 GMT 6/5/73

SC Hey, Richard, you got any news down there this morning? We don't know what's going on.

CC Let me see if I can drum up what's going on in the world for you all.

Skylab, Houston. Wa're out of keyhole CC We've still got about 5 minutes left in the pass. at Madrid. And one thing, just like every day since you guys have taken off, you're on the front page. And today there's an article on the front page of the morning paper, that your space walk has been given an okay. And a pretty long column and you might be interested to know that over on our bulletin board is a congratulatory message from some members of Congress to NASA, about the way we've handled this mission so far. Also I've got a couple of notes for the CDR this morning. First one is in reference to the conversation, I guess, you had, Pete, last evening just before bed about the fact that some of the comments that you have been putting on Channel B on medical status data hadn't been getting to the right people. Please be advised that this was a mix-up. The data is indeed in the MOCR and we had a breakdown in communication, which we have rectified. Your recorded data has been excellent. And we'd appreciate it if you'd keep recording the data on Channel B. We have got it to the right people and we'll continue to do so.

SC Way we go, Dick.

CC And one more item for the CDR, on his Flight Plan today, is very minor. On the S009 item on the Flight Plan, it says S009 SET. It should say S009 INITIATE, which will send you to the proper page in the checklist for what we want to accomplish this morning.

SC Roger. Copy that, Dick.

CC Okay.

CC Skylab, Houston. We're one minute from LOS. We're going to see you down at Honeysuckle at 12:28.

SC Rog. 12:28.

PAO This is Skylab Control; loss of signal through the Madrid Tracking Station; Honeysuckle Creek, Australia, in 34 minutes. At 11:53 Greenwich mean time; Skylab Control; out.

SL-11 MC541/1 Time: 07:26 CDT, 12:12:26 GMT 6/5/73

This is SKylab Control; 12:27 Greenwich mean time. 50 seconds away from acquisition at Honeysuckle Creek, Australia. Looking at a weather map for today's earth resources pass coming diagonally across the Western United States from the Oregon Coast and out the Texas Gulf Coast, shows a 0 to .3 cloud cover over most of the area except the Gulf Coast Region where the cloud cover becomes .8 to full cloud cover. There's a low pressure trough running almost parallel to the Gulf Coast of Texas, a couple hundred miles inland that's causing the cloudiness, and a couple of high pressure areas.

CC -- for 9 minutes.

SC Roger, Dick. What I'd like to do if I get a chance, is start this TV 12 a little early today. I just want a varification - the PTR is ready for it.

CC Roger. Stand by one.

CC Skylab, Houston. We concur. If you're ready to go ahead with the TV 12, it's okay with us.

SC Okay. It'll be a while but I just wanted to make sure.

CC I understand. Anytime you get to it. SC Okay.

And Skylab, Houston, one update on your solar activity pad that we've already sent up, filament number 70 has dissipated and the second point is that new region prominence 73 at 280 degrees and 1.0 has been moderately active.

SC Okay, Dick. I think that's the prominence we channel B'ed you last night.

CC Roger.

SC Yeah. We were fooling around the Sun --SC We weren't fooling around. We were observing.

SC And "Scientific" noticed the prominence and we noticed a brightening in XUV mon in that area, and wondered if there was an active region due to return at that point.

CC Roger. Understand. And sometime prior to EREP, I've got one minor correction to the EREP operate pad that belongs to the CDR this morning. But we got a while so any one of these passes when you got it in your hand, I'll be glad to read it up to you.

SC Go ahead and read it, Dick. I'll - I'll copy i in the interlude.

CC Okay, it's about - it's over in operate column oh, a little more than half way down and at a time - just below the time of 1801 plus 17. And over there in the

SL-II HC541/2 Time: 07:26 CDT, 12:12:26 GMT 6/5/73

right "here it says mode-ITNC, I want to delete L/R. the only change.

SC Got it. CC Roger.

CC Skylab, Houston. Be advised that here at Honeysuckle we're going to start a series of commands to configure the bird 2 rate gyros per axis for the day.

SC Roger, Dick.

SC And Houston, I don't need an answer this time, but something - I notice you're forecasting .4 clouds cover in the Houston area today for that EREP site. And I can't see ony of the advertised ones, is there any reason I shouldn't go after another one?

SC Hello Houston, Skylab.

CC Go ahead, PLT.

SC Did you get my last on the VTS site? CC Affirm, Paul. And l've got an answer

Incidentaly the cloud coverage predicted, a for you. little bit worse than what we read up to you. Right now it's quite possible that it might be in places, .7 up to an overcast. However, the answer to your question is; certainly if you assuming that you take into consideration upcoming sites ahead of you, and you get a chance to go to an elternate, go ahead. Ok ay.

CC And be advised, we're about 45 seconds We're going to see you at Hawaii at 12:48. from LOS.

SC Righty, dighty.

PAO This is Skylab Control. Loss of signal through the Hone/suckle Creek- Australia tracking station. Part of the air-to-ground communications during the Honeysuckle Creek pass concerned the cloud cover toward the end of the Continental United States portion of today's earth resources experiment package survey. The fifth for the Skylab mission. This fifth survey is of the surface and atmosphere of the Earth; begins at 12:57 p.m. Central And ends at 1:09 p.m. Following ground daylight time. track 34, the earth resources experiment package pass begins in Southeast Oregon, crosses Nevada, Utah, Colorado, New Mexico, Texas, Gulf of Mexico, and ends in the Caribbean Sea just north of the canal zone. Data will be gathered for a period of 12 minutes. During today's ERLP pass the S190 B earth terrain camera will be used for the first time. The camera will be operated by Science Pilot, Dr. Joseph Kerwin, and uses a single 18 inch focal lenght lens with 5 inch wide film. The camera is designed to use high resolution color

SL-II NC541/3 Time: 07:26 CDT, 12:12:26 GMT 6/5/73

film. And can provide detailed resolution photographs of objects as small as 38 feet. Robin I. Welch, of the Earth Satellite Corporation, Berkeley, California, will use data from today's pass over the Colorado Plateau in developing a uniform legend and procedure for the mapping and classification of the natural resources on a global basis. Data gained for Dr. J. R. Eagleman, of The Center for Research, at the University of Kansas, will be used in determining the techniques and procedures required to use microwave data for the identification of available moisture, either in the soil or in snow packs. And to evaluate the microwave system, providing management and scheduling instruments for determining the availability of water for agriculture and potential for flood forecasting. Photo interpretation of the S190A, S190B, and S192 imagery will be used by Dr. Keenan Lee, of the Colorado School of Mines in Golden, Colorado, for mapping geological features in Western Colorado. Dr. Lee also will study \$191 data to determine the effects of atmospheric attenuation on rocks spectra. S190 and S192 imagery will be studied visually and by means of densitometry and additive color viewing to identify the fracture patterns, offset of formations, rock color differences, and vegetation patterns. Color features identified with no mineral deposits and other areas that seem to contain features diagnostic of mineral deposits, which are not now known to contain economic deposits. This experiment is being carried out for Dr. Mead Leroy Jensen, Director of Laboratory of Isotope Geology, at the University of Utah. Information will be acquired on areas in Nevada and Utah. Dr. V. R. Baker, department of Geological Sciences, University of Texas, will use data to perform the stream network analysis of the Guadaloupe and Colorado River basins in Texas, assuming, of course, that this cloud cover mentioned on the air ground during the Honeysuckle pass doesn't get worse, if it could get worse. Scientists from the Johnson Space Center will be interested in data from today's pass for study in connection with the Houston Area Test Site Project. Dr. C. L. Korb is interested in using data for mapping the absolute sea surface temperature, correlating this measurement with chlorophyl concentration, known fishing areas, and ocean currents. Dr. Thomas L. Barnett will use data to develop methods to permit operation satellites to collect their own correction data, which are comparison of mathemathical inversion to extract temperature in water vapor vertical distribution profiles from radiances used to calculate attentuation effects in atmospheric windows

8L-II MC541/4 Time: 07:26 CDT, 12:12:26 GHT 6/5/73

apectra of targets taken at two or more angles to yield gross and atmospheric effects directly. That's got to be one sentence. Let's jump down to the next sentence, okay? Evaluation of the application of EREP sensors to land classification in the Houston area is the purpose of information being gathered for Dr. R. Bryan Erb. Several other principal investigators are interested in information being gathered in todays pass for other related research projects. Three minutes from AOS Hawaii. 12:44 Greenwich mean time. We'll leave the circuit up for Hawaii. A brief break between Hawaii and the states during the end of revolution 315. Skylab Control standing by.

8L-II MC-542/1 Time: 07:43 CDT, 12:12:45 GMT 6/5/73

PAO We have acquisition at Hawaii. Standing by for CAP COM Dick Truly's resumption of air-to-ground communications with the Skylab Space Station crew.

CC Skylab, Houston, We're AOS Hawaii

for 9 minutes.

SC Hello.

SC Hey, Dick. There was one message in the odds and ends about any items that appear to be deteriorating and should be returned on SL-2 or be resupplied on SL-3. We don't have anything deteriorating that's worth returning. We mentioned the shoes, which - PJ's are beginning to come apart, because you don't wear your triangle shoes all the time. You tend to stick the other ones in the floor for a hold. kind of wears them out in a hurry. But the only other item that I know of that we've had some trouble with is we - we had trouble with one astro pin, and in the process of trying to replace it with another one from another place, we destroyed the second one. And - So we have two handles up here to that astro pin's missing out of them. In the event that Al and those guys want to, they should bring two spare astro pins to fit handles along. However, we've found very little use for the handles. We haven't used them at all.

CC Roger, Pete. Understand. I think the purpose of that was just a - you know, get you to kind of thinking about it so if there are some things that you run into that you think we ought to think about flying up there, we hear about them as soon as possible, so we can, you know, do our planning.

SC Yeah. We'll sure tell you about it. But right now I can't think of any.

CC Okay.

SC Hank, there is one ining that PJ just mentioned. We're - I think our usage of grey tape is probably higher than they expected. And I would suspect, somewhere along the line, somebody would want to bring some more grey tape.

CC Roger. That doesn't surprise me.
SC Yeah. We use it for virtually anything you can think of. And we're using it at pretty high rate.
CC Okay. Thank you much. We'll pass these on and anymore you think of as you go along.
SC Tight now Joe and I - this is our first chance to study this EVA stuff. We're here looking at it.

CC Roger. Okay. Well, we thought we'd pass it up to you and let you brouse over it today. And then you can think about it a little bit, and we can talk about it this evening or, for that matter, any time you get a chance.

SL-II MC-542/2 Time: 07:45 CDT, 12:12:45 GMT 6/5/73

But I'm sure that Rusty will plan on being here this evening, when we've got it scheduled for a couple of passes to talk about.

CC And Skylab; Houston. One note from the GNS on RATE GYRO number Y3 in some observations we made last evening. He noticed that the output of GYRO Y3 oscillates at about 3 cycles per second when the wheel is inhibited. But the output looks good as long as the wheel is enabled, and so we've elected to leave it powered and enabled. Over.

SC Okay.

CC And we'll keep you posted if that

changes.

CC Skylab, Houston. We're one minute to LOS. We got a real short break and see you in Goldstone on the hour.

SC Okay.

8L-11 MC343/1 Time: 07:58 CDT, 12:12:58 GHT 6/5/73

PAO This is Skylab Control; 12:58 Greenwich mean time. About 2 minutes gap here between Hawaii and Goldstone acquisition on rev 315. But it'll stay up across the States and on through to Canary and Ascension. Since there are such small gaps between stations at these altitudes that Skylab is flying, the station overlaps are much greater than at the 100 mile orbit that was flown in earlier programs. 12:59 Greenwich time; standing by, Skylab Control.

SL-11 MC544/1 Time: 08:09 CDT, 12:13:09 GMT 6/5/73

CC Skylab, Houston; AOS for 6 minutes.

We have lost comm over Goldstone.
SC Roger, Houston.

CC Skylab, the tape recorder will be dumped

at the next pass over Canary coming up. SC (Garble) Houston.

CC Go shead, Skylab.

SC Houston, SPT.

CC Go, SPT.

Okay, in this morning's department of odds and ends, we've got two new medical breakthroughs to report, both mouth sounds and snoring are just as loud in zero-g as they are in 1.

CC We copy that, Joe, and did you hear any

TACS firings last?

SC Well. No. We hear TACS firing just after passing into sunset and just after coming out again in the day and they're curiously metallic sounds as though something were expanding and contracting outside.

CC Okay, we copy that.

SC Yeah, Houston. There's one spot that's obviously gotten one piece of metal that does some papping and shortly after going into darkness it lets go and sounds an awful lot like a TACS, but it isn't and when we have the TACS inhibited sure enough it continues to make it's voice - just does it like Joe says, "once in and once out" does firing twice.

CC We copy that, Pete.

CC Pete, do you think that the sounds you reported the other evening could possibly have been the same sounds?

TACS firing and that's what was confusing you and me both because it sounds an awful lot like a TACS. What it sounds like is a muffled shotgun going off, is what it sounds like when the TACS fires. Go to zips. Go different but it's a different location and depending on where the TACS - which TACS fired you get a different sound also, but I think I was confusing this obvious thermal expansion and contraction of something as the TACS firing.

CC Okay, and we're going LOS here. We'll have you at Canary at 13:20. Arropos Joe's first transmission, their are other sounds that you have to watch out for that in SMFAT we could have confused with TACS.

SC Hold steady (static).

BL-11 MC545/1 Time: 08:19 CDT, 12:13:19 GMT 6/5/73

CC Righ in Skylab, we're AOS again for 9 minutes. S C Roger, Houston. SC Dance, Houston; 8009 is off on time. CC We copy, Pete. CC Skylab, if you called, we're standing by. Yeah, I can't get any power on the VTR. SC Have you got an / ideas? CC Stand by. SC Hello, Houston; Skylab. You there? CC We're still here. SC I say I cannot get power to the video Have you got any ideas - quickly? tape recorder. CC stand by 1/2. J.C To get power to that, you have to have the power outlet ON. That's the accessory high power which is 115. Also the circuit breaker on panel 202 ON and MAIN VTR POWER ON. CC And we're showing your MAIN VTR POWER OFF at the moment. SC Okay, we got it. Sloppy housekeeping -We had used the vacuum cleaner up forward yesterday on that outlet, and I have to take one for that because I did not plug the VTR back in. CC he copy. SC So I guess you didn't try to dump them last night, huh? CC Ash, we didn't get a dump last night. SC Is there enough tape on here to do this TV this morning, Bill? Supposed to be, but stand by 1/2. You've got 30 minutes. Wel., I'll go ahead and run it. We either S C reach the end of the tape or we'll get it on. I may have to -I'll be glad to run it again for you, because I boo-booed. Paul, you're supposed to have enough. CC You have 30 minutes. CC And be advised we have completed unattended OPS and are closing the fine Sun-sensor door. SC Roger. CC Skylab, Houston. LOS in 1 minute; Goldstone - Correction: Carnarvon 14:03. SC All right. PAO This is Skylab Control; 13:37 Greenwich mean time. Twenty-five minutes to Carnarvon, next station, However, a very low elevation angle - only 2.3 degrees above the horizon at Carnarvon. Honeysuckle, lapping over Carnarvon,

TL-II MC545/2 Time: 08:19 CDT, 12:13:19 GMT Gy5/73

almost 20 degrees elevation. The following is a statement by Skylab Program Director William C. Schneider at NASA Headquarters, regarding the possible extension of Skylab-II mission. statement is as follows. "As part of the comprehensive examination of all alternatives to relieving the Skylab power management problem and maximizing the scientific return from the program, an alternative of extending the first manned mission from 28 to 38 days was reviewed. The review has resulted in a conclusion that there is no justification for any extension of the mission at this time. Skylab continues with a duration for the first manned mission of up to 28 days. Inflight medical data continues to be gathered during this mission and has revealed absolutely no inflight medical concern. All crew physiological responses are as expected, as has been reported in the daily bulletins. The crew has consistently reported no difficulty and this has been confirmed by the telemetry data." Twenty-three minutes to Carnarvon and Honeysuckle. At 13:39 Greenwich mean time, Skylab Control out.

SL-II MC-546/1 Time: 09:02 CDT, 12:14:02 GMT 6/5/73

PAO This is Skylab Control; 14:02 Greenwich mean time. Fifty seconds away from acquisition through the Honeysuckle Creek and the portion of the Carnarvon Tracking Station. Flight Director Chuck Lewis is leaving the Control Center at this time enroute to the Houston News Center for a change-of-shift briefing. This will be followed at 10:00 a.m. with Dr. Royce Hawkins, with a b. efing on the status of medical experiments and crew medical reactions in the mission up to this time. We're AOS through Carnarvon and Honeysuckle. We'll stand by for resumption of air-ground.

PAO Skylab Control. The average air ambient temperature in Skylab Space Station this morning is reported to be 76 degrees Fahrerheit, coming down slowly. Eight minutes remaining in Honeysuchle and Carnarvon Tracking Station passes. The change-of-shift press briefing will begin within the next 5 minutes or so, as soon as Chuck Lawis arrives at the Houston News Center. Standing by for the remainder of Honeysuckle pass, Skylab Control.

SC Houston, Skylab. You've got a key down.

CC Thank you.

CC We copy.

CC Skylab, if you're calling, Houston

standing by.

SC Negative.

PAO This is Skylab Control. The change-of-shift press briefing will begin momentarily with Flight Director Chuck Lewis in the Houston News Room. We will take down the air-to-ground circuit at this time and tape record any further conversations between the crew of Skylab and the spacecraft communicator in this Honeysuckle pass and the upcoming Hawaii pass. At 14:11 Greenwich mean time, Skylab Control out.

SL-II NC547/1 Time: 09:36 CDT, 12:14:36 GMT 6/5/73

PAO This is Skylab Control; 14:37 coming up on stateside pass. We'll delay playback of the Honeysuckle and Hawaii passes until after LOS or until after the press conference, which ever comes first at 10 o'clock.

SC Do you read me? CC That's affirm.

SC Okay (garble) for one you'll notice where you can see the dip with the little piece of prominence still attached (garble) directly above it is this piece that appears to be departing the Sun. I'll move the disk off the tube a little bit so that you can see a little better.

CC Copy.

CC PLT, the TV is being received on the ground at the site but it isn't coming realtime to Houston. And we appreciate your comments though.

SC Okay, if that's enough I'll get on with this downlink.

CC Okay.

CC Okay, Paul. Understand that we'd still be interested in your comments because we'll be seeing it a short time later.

SC Yes sir, understand.

CC Skylab, one minute LOS; Bermuda at 14:47. Also we will be dumping the tape recorder at Carnarvon.

SC Okay be advised that TV 12 on there is about 10 to 12 minutes, Bill.

CC We copy, Paul.

CC Skylab, Houston; AOS for approximately 11 minutes.

SC Oh, it's a long one, huh?

CC That's affirm.

SC Now for the ATM people I couldn't make out any libration clouds. I think our picture is a little too poor quality to be able to see them although we'll sure keep trying.

CC We copy.

8 C Hello, Houston. You there? CC Yeah, we're standing by. 5 C Okay, I've got a quick question on this first job we're doing - the pad says 82A auto 1 long which I assumed meant both places in the building block. I just looked it up. I see it takes 28 minutes - do you want me to enter up the one that's running now, go shead and do my roll and pick it up again? CC Stand by 1/2. CC PLT, Houston. That's a long wavelength of a 7.1 minute exposure. SC Okay. CC PLT, grounds termination on time here. S C Okay, thank you. CC SPT, Houston. SC Go ahead. Houston. CC CDR might be advised that the Cubs haven't been doing very well recently. SC Roger, Bill, understand. SC We figured as much. CC We'll be LOS in about a minute; coming up on Ascension in about 8 minutes. And we want you to delay the 4171 run until reaching Ascension. SC You're throwing our whole time line off. Houston, we've got other things scheduled. I'm afraid we're going to have to press on but - well, listen tell me what time Ascension is. CC Ascension is 15:04. SC Oh, well, hell that's only 5 minutes from BOW.

PAO This is Skylab Control; 14:58 Greenwich mean time; loss of signal through Bermuda at the end of that stateside pass at the outset of revolution 317; we have 2 minutes and 45 seconds of recorded air-to-ground that was picked up during the last Honeysuckle and Hawaii pass during the time the Change of Shift Conference was underway. We'll play that back during this gap before Ascension. AOS at Ascension in about 5 minutes. Let's roll that tape and then go live again with Ascension.

Let's roll that tape and then go live PAO again with Ascension. Skylab, Houston. LOS in 1 minute; And, PLT, we would like you to go AUTO on the Havaii at 14:25. star tracker. Okay, you want AUTO right now, huh? SC CC That's affirm. SC You guys do good work. CC Copy. SPT, Houston. We may have a ground problem CC here, but if you would verify that on panel 617 INSTRUMENTATION MODE SELECT is at B (static). S C Go anead. CC SPT, verify 617 INSTRUMENT MODE SELECT B. SC (garble) LOS? That's affirm. CC Skylab, Houston. AOS for 9 minutes. CC Houston, Skylab. SC CC Go, Skylab. Okay, these two tape recorder switches looked SC like they were at Bravo, but they were at Charlie. They have to approach them from A, or else they don't read right for (garble). We copy that. CC Skylab, we're going LCS in about a minute. CC We'll have you at Goldstone at 14:38. And, SPT, since the instrumentation recorder switch was off there at the beginning, they lost CAL; so if you'd do at least a 25-second CAL before shutting down the recorder on this one - per the checklist. please, sir. I started the whole procedure over again, SC Houston. Copy that. Hello, Houston; Skylab. You there? SC CC We're still here. Go, Paul. SC Okay. For information, the prominence is 2801 and, compared to last night, is departing the surface of th? Sun. It no longer appears to be attached and is - wh, I'd say 0.05 solar radii above the wire - the H-alpha lift. CC We copy that. This is Skylab Control with (garble) playback of the Honeysuckle and Hawaii pass. Two minutes to Ascension, and there has been a half hour delay in the start of the Medical Briefing with Dr. Royce Hawkins in the Houston News Center. It's now scheduled for 10:30 a.m. no earlier than 10:30 a.m. central daylight time. Minure and a half away from Ascension Island pass, which will last approxi-

mately 10 minutes. Skylab Control, at 15:02, standing by,

8L-II MC550/1 Time: 10:03 CDT, 12:15:03 GKT 6/5/73

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CC
                     Skylab, Houston we're AOS for 9 minutes.
      S C
                      Roger.
      5 C
                     Houston, CDR.
                     Go, CDR.
      CC
                      At their convenience sometime I'd like
      SC
to talk to Dr. Kraft private.
                     Wilco.
      CC
                     SPT, Houston.
      CC
      SC
                      Stand by.
                      Go ahead, Houston.
      SC
      CC
                      They want you to proceed per the pad -
repeat per the pad on M171.
      SC
                      Roger.
      SC
                      Understand that means we are to use the
140 workload for the CDR.
                      Joe, you can use either the 125 or the
155 - it's your option.
      CC
                      That's on the third level.
      S C
                      Oh, it's our option. Okay, thank you.
                      Skylab, we're going LOS in about 1-1/2
      CC
         We'll see you at Carnarvon at 15:37.
minute.
                      Roger, how did your data look?
      S C
      CC
                      It's looking good.
      S C
                      Okay.
      SC
                      Houston, you still there?
                      We still have you.
      CC
      SC
                      That figures. Quit plugging carona-
                I was running it continuous and all of a sudden
graph will you.
I have a ready light.
      CC
                      Copy.
      SC
                      And, we've got about a minute to look; I've
got to get on with this align.
      CC
                      Copy.
                      This is Skylab Control: 15:16 Greenwich
      PAO
            Loss of signal through Ascension Island. Presently
mean time.
the science pilot and commander operating the M092 - lower
Lody negative pressure experiment and the associated experi-
ment metabollic activity, M171; while the pilot Paul Weitz
is making the first Apollo telescope mount solar observatory
run of the day. 20 minutes to acquisition at Carnarvon.
Australia; and at 15:16 Greenwich mean time, Skylab Control.
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SL-II MC-551/1 Title: 10:35 CDT, 12:15:35 GMT 1 3

This is Skylab Control; 15:35 Greenwich mean time, about 2 minutes away from acquisition at the Carnarvon, Australia, Tracking Station. There goes the warbler in the control room, here, to alert controllers that we're 2 minutes away. Currently, state of charge of the ATM batteries running about 70 percent. Average for the 16 of 18 batteries still on line. Air temperatures in the workshop are hanging in around 76 degrees Fahrenheit. Orbital measurements 231.7 nautical at perigee by 241.4 at apogee. Period: 1 hour 3s minutes 22 seconds. During the most recent station pass over Ascension Island, Skylab Commander Pete Conrad asked for a private conversation with the Johnson Space Center Director, Christopher C. Kraft, Jr. We have no definite word when that will take place. But after it's conclusion, the summary of that private conversation will be read over this broadcast line. A medical briefing with Dr. Royce Hawkins is scheduled to begin within the next several minutes in the newsroom. Any air-ground will be recorded for delayed playback after the medical briefing on experiment status. Standing by for Carnarvon acquisition - -

AOS for 10 minutes. CC

Roger. SC

This is Skylab Control, we've received PAO word that Dr. Hawkins briefing on medical status will be delayed indefinitely and rescheduled with as much advanced notice, as possible. Up live for Carnarvon pass.

PLT, Houston. S C

Go ahead. SC

The power situation has improved here. CC It looks as if we can get some better data by longer warmup times, so at 16:00 we want C&D power ON and S191 power ON. That last one is per EREP procedure 6-1.

All right the PLT copies that, CC

Okay. CC

Skylab; LOS in one minute. Guam 15:51 CC CDR your request will be honored during the Guam pass. AOS.

Roger. SC This is Skylab Control; 15:4/ Greenwich PAO mean time. We've had loss of signal through the Carnarvon Australia Tracking Station. We're three minutes away from the Guam Island Tracking Station. However, this will be the private conversation requested by Skylab Commander Pete Conrad, with Johnson Space Center Director, Christopher C. Kraft Jr. Therefore, we'll be back live for the stateside pass of Goldstone in about 28 minutes. At 15:48 Greenwich mean time; Skylab Control.

SL-II NC552/1 Time: 11:15 CDT, 12:16:15 GMT 6/5/73

PAO This is Skylab Coatrol; 16:15 Greenwich mean time. About 50 seconds to acquisition at Goldstone for a fairly solid stateside pass.

CC Skylab, Rouston. AOS for 7 minutes.

CC PLT, Rouston. CC PLT, Houston.

CC Skylab, Houston. This is a reminder to power down CaD panel power while doing the tape recorder switch over.

CC SPT, this is a reminder that the H-alpha camera hus to be turned on manually.

SC Houston, CDR.

CC Go, CDR.

SC Okay. The EREP prep pad, y'all asked for K5 film reading, which has 25 magazine on it, and it reads 8337. Over.

CC Copy.

SL-11 NC 553/ 1 Time: 11:27 CDT, 12:16:27 GMT 6/5/73

> %C Houston, SPT. You there? CC Go, SPT.

Okay. I'm observing something interesting we haven't seen before and I'd like you guys to look at it. My experiment row indication is decreasing at about a, you know, normal roll-rate roll. Now, the canister is not rolling. The canister roll isn't changing - out the window the canister isn't moving, and the TV display is steady. Like you guys to look and advise on that.

A STATE OF THE STA

CC Joe, the startzacker is apparently locked up on something odd, and we'll have to go manually here. We're coming up with some numbers for you.

SC Ho, ho.

SC Very good. Our orbital (garble) is now 36 degrees.

CC Copy. And we'll be dumping the tape recorder at M(LA at 16:24.

SC Roger.

SC My startracker pad still good?

CC Negative, Joe. Your pad's no good. We're trying to work up some numbers.

SC (garble) I'd rather have something fairly (garble) before the computer tries to dump all that false momentum, or something.

CC Okay.

CC SPT, Houston. The numbers are for the inner gimbal, minus 8; outer gimbal, plus 1084. Inner gimbal minus 8 and outer plus 1084. That's minus 8 for the inner.

SC Got it. Is that our friend astronaut?

CC Affirm.

CC Skylab, Houston. We're going LOS in about 30 seconds, and we'll have you again at 17:15.

SC Roger.

That's Carnarvon, 17:15.

SC Okny, and we got the star, Houston.

CC Sopy.

PAO This is Skylab Control; as the air ground circuit gets scratchy it means we've had loss of signal as the space station Skylab goes over the horizon from Bermuda. Next station, Carnarvon in 39 minutes. The private conversation requested by Pete Conrad was held over the Guam Island station during the middle part of the last revolution with Johson Space Center Director Christopher C. Kraft. A summary of that private conversation will be forth coming. No estimate at this time. In - At 16:36 Greenwich mean time, with 38 minutes to go to next station at Carnarvon, this is Skylab Control.

CC

SL-II NC-554/1 Time: 12:13 CDT, 12:17:13 GMT 6/5/73

PAO
This is Skylab Control; 17:14 Greenwich mean time. Some 40 seconds away from Carnarvon acquisition. Midway through Earth orbit number 318. Final Carnarvon pass of the day. And a brief pause and across Guam again for the final time today - "

CC AOS 9 minutes.

SC Hello.

CC Skylab, Houston. AOS for 9 minutes and we have some EREP messages here.

Okay. Stand by for one minute, please

Houston, on that.

CC Wilco.

SC Go ahead, Houston.

CC On S194 you may get a momentary malfunction light, while calibrating. If the cal source is not within limits, it may stay on. No action's required.

SC Roger.

CC On S19A (sic), malfunction light may come on any camera during the run and no action's required on that. You also may have malfunction light on the tage recorder for 5 seconds as it comes up to speed, again no action is required.

SC Okay. We understand all those.
SC (garble) that's 190 (garble) We had

no maf light.

CC Copy.

SC Hello, Houston. We've got a configuration

question for you.

CC Go, Skylab.

SC Notice on panel 225. On the 5 psi the ATM and the LPG reservoirs. We got one REG open and one closed. We're pretty sure it's rot right. What configuration do you want on that?

CC Stand by.

CC FLT. Houston.

SC Go ahead, Houston.

CC Both REGS should be open on panel

225.

SC Thank you.

CC Skylab, we're going to LOS in about

4 or 5 beconds. We'll see you at Guam at 17:29.

pAO This is Skylab Control; loss of signal from Carnarvon. About a 6 minute gap across the Philippine Sea to the start of Guam acquisition. It was at the last Guam pass that the private conversation requested by Pete Conrad was held. As mentioned earlier, a summary of this private conversation will be forth coming. 17:25 standing by for Guam in 3 minutes; Skylab Control.

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8L-11 MC335/1
       12:29 CDT, 12:17:29 GMT
6/5/73
      CC
                     Skylab, Houston. AOS for 6 minutes.
      SC
                     Roger, Houston.
      SC
                     Houston, SPT.
      CC
                     Go SPT.
      SC
                     Okay.
                            We're going to reenable TACS for
this DOV maneuver, and I was wondering about reenabling CHG
             That was not in any of the checklist updates that
AUTO RESET.
you sent us. Is it desirable or not? Over.
                     Do not reenable the CMG RESET.
do not reerable the CMG RESET.
      SC
                     Okay.
      CC
                     And we do agree with reenabling the
TACS, of course.
      SC
                     Okay.
      SC
                  . Houston, I've got one other word for plan-
ning on future passes. And I think you gave more time for
that operator number 2 between getting the star tracker locked
on and getting over to the VTS. Today there's only a minute and
a half - a minute and 40 seconds from star tracker walk-on to
first right acquisition. I'd appreciate it if that would -
could be a little longer in the future.
      CC
                     We copy, and we'll take care of it.
      SC
                     Thank you.
      CC
                     SPT, Houston.
      SC
                     Go ahead.
      CC
                     We want to put the SO54 filter to 1 and
then STORAGE.
      SC
                     Houston, SPT.
      CC
                     Go, SPT.
                     My power down for unattended checklist
said that $052 - to pit the alined scales - to push the times
shead. We would prefer to leave it at times 1. Is that okay
with them?
      CC
                      Stand by, Joe.
      S C
                     Houston. CDR.
      CC
                      Go, CDR.
                      (Static) Roger. Do you know when the tele-
      SC
printer gets another line, (static) or does one (garble)? (Garble).
      CC
                      CDR, you're squealing. We can't read you.
      SC
                      Okay (static) teleprinter (static)
      CC
                      CDR, you are unreadable.
      SC
                      (Garble) (static)
      CC
                      Tell him (garble).
                      Pete, we're unable to copy anything ex-
     something about a teleprinter.
      SC
                      Roger, Houston.
                                       How's this?
      CC
                      You're loud and clear on that, Pete.
Go ahead.
      SC
                      Okty. thank you.
```

SL-II NC553/2 Time: 12:29 CDT, 12:17:29 GHT 6/5/73

SC Can you tell when the teleprinter has sent the same line twice?

CC Stand by, CDR.

CC And, SPT, your question - the answer to your question is affirmative.

SC Thank you.

CC CDR, we cannot tell if it sent two lines.

SC Okay (garble) mode of interest (static)

(loud background noise).

SC My line (garble) (static)

CC Pete, it's virtually impossible to copy you. We're going LOS here, and we'll have you at Goldstone at 17:53. We understand you're having difficulties with double printing on the teleprinter.

PAO This is Skylab Control. Loss of signal from Guam Island Station. Some fairly bad communications there with the speaker box that Commander Pete Conrad was attempting to talk through; apparently concerning teleprinter stuttering. Fourteen minutes to stateside pass through - starting with Goldstone. And the fifth Earth resources survey of the mission, starting at 12:57 central daylight and ending at 1:09 p.m., begins in southeast Oregon, across Nevada, Utah, Colorado, New Moxico, Texas, Gulf of Mexico and the Carribean Sea to just north of the canal zone. However, the Gulf Coast region has a fairly heavy cloud cover, and some of the targets on this EREP pass will likely be obscured or lost altogether. today's EREP survey, the S190B, Earth terrain camera, will be fired up for the first time and operated by cience Filot Joe Kerwin. The crew of Skylab usually (at least the operators on the EREP equipment and sensors, cameras) are on voice actuated intercom so that the ground is able to follow their checklist of turning on and off the EREP experiments. Goldstone in 12 minutes. At 17:40 Greenwich mean time, Skylab Control.

SL-II NC-556/1
Time: 12:52 CDT, 12:17:52 GRT
6/5/73

PAO This is Skylab Control; 17:52 Greenwich
mean time. Pifty-five seconds to AOS Goldstone. We'll
probably hear the crew come over the horizon in voice
actuated intercom mode as they go through the Earth resources
package checklist. Today, the groundtrack 34 pass has some
37 task site combinations and 6 targets for the S191 infrared
spectrometer.

Reser. Houston. How do you read CDR on

A CONTRACTOR

SC Roger, Houston. How do you read CDR on CC You're loud and clear, sir.

SC Okay. We're standing by to start the pass.

A STATE

. . .

CC Copy.

SC And, Houston, we have verified that we are in the PREOPERATE configuration. The S192 door OPEN; 91 door is open; S190 window OPEN. The tape recorder power is ON in accordance with the commander and PLT's (garble) EREP cue card.

CC We copy, CDR.
SC MARK (garble). 54, I need an AUTO CAL.

MARK 54 AUTO CAL.

YOXT

SC For your information, Houston, Brave 7 is 75 percent and dropping.

CC Copy.

SC MARK SCAT STANDBY.

SC You read me?

SC Yeah, loud and clear.
SC MARK S194 MODE MANUAL.

SC Oooh. (Garble) wide open today.

SC No - no READY light on S191.

SC MARK 3192 MODE READY. MARK 190 to AUTO.

ETC, AUTO.

SC 1908 AUTO. And (garble).

SC (Garble) SCAT's ON.

SC I got green lights on everything but S191.

SC Even you could have found --

SC STANDBY. RAD STANDBY. INTRACK CONTIGUOUS. RAD's ON; SCAT's ON. Getting occasional RAD SCAT gimbal light,

which is normal.

SC SCAT, STANDB"; RAD, STANDBY; CROSS TRACK,

CONTIGUOUS.

sc 50 30.

SC RAD's ON; SCAT's ON.

SC SCAT, STANDBY; RAD, STANDBY; MODE, IN-

TRACK CONTIGUOUS; POLARIZATION, 5 (garble).

CC Pete, that MODE should be NON-CONTIGUOUS.

NON-CONTIGUOUS.

SC It's in the right place. I said it wrong - RAD, ON; SCAT, ON. It's INTRACK, NON-CONTIGUOUS. I had the switch right, but said it wrong. I can't pronounce big words.

8 C . MARK 8192 STANDBY: Bravo 7 reads: 72 percent. Standing by for 8, plus 50. S C Hey, \$190B shows you feet is now at 100. S C Burn across Florida? SC No, in Texas - Houston. SC (Garble)? SC No. SC Okay. SC There it is, right here. SC Oh, yeah. SC Okay, Houston. Only got one of the Houston mites; that was out in the water at 445 - I meant 415 and 420. CC We copy, Paul. SC Kind of got started on the nadir track a little late, about 04:10. At 05:20 we started crossing land. At 05:53 we're back over the water. And your 191 information on this one, Houston, we'll try and connect. We're passing over some fair weather cue over the water on this slot. CC Skylab, we're going LOS in about 4 or 5 seconds. Vanguard at 18:19. SC Roger. Tape recorder. At 7:28, we passed over land; at 7:35, we're back over water. MARK SCAT STANDBY, RAD STANDBY, ETC to SC STANDBY. MARK. SC Roger. SC VTS AUTO CAL, please. SC Yes. Turn the ETC to frame counters 119. SC Frame count is 119. Okay. SC And also, Joe, it goes in the photo log, I think. SC Yeah. Thank you. SC (Garble) 906 MODE MANUAL 090 (garble). PAO This is Skylab Control. We've been LOS

for about 4 or 5 minutes here. And our next station is Vanguard in 7 minutes. At 18:12 Greenwich mean time, this

END OF TAPE

is Skylab Control.

SL-11 MC-556/2

12:52 CDT, 12:17:52 CET

Time:

6/5/73

SL-II NC557/1 Time: 13:18 CDT, 12:18:18 GMT 6/5/73

PAO This is Skylab Control; 18:18 Greenwich mean time. 50 seconds to acquisition at the tracking ship Vanguard. And then there will be a gap of about an hour and 4 minutes before next station, Goldstone. Stand by now for the first Vanguard pass of the afternoon. Skylab Control standing by.

CC Skylab, Houston. AOS for 7 minutes.

SC Roger. SC Hev. Ho

Hey, Houston, we just got a S191 ready

light.

CC Copy. Can we get an approximate time

on that light?

SC Yeah, it was about a minute ago.

SC About 18:19, at which time Bravo 7 was reading 43. We left it on a little longer to see if we'd get a light. And what happened was once they got below about 70 percent - (garble) Once the detector tip got down about 65 you could actually see the needle move. That pointer was really on - really moving on down. As I say, once it got to 43 at the time indicated, then we got a ready light.

CC Copy.

SC Houston, you still there?

CC We're still with you, Pete. Go.

SC Okay, also be advised, we hedged a little more on 191 cooler. We turned it on about - about 2 minutes earlier than the pad called for you. You want to - yeah, we're trying to figure something out, taking that into account too.

CC We copy. CC Skylab.

Skylab. You're going LOS in a minute.

Goldstone at 19:30.

PAO This is Skylab Control; 18:28 Greenwich mean time. An hour and 2 minutes to Goldstone tracking station, next contact with the ground with the - and the Skylab space station. State of charge on the batteries, currently as of the Vanguard tracking ship pass, 69 percent of total capacity. Apparently successful earth resources survey run over the Continental United States, portions of Central America. Back again in 1 hour for Goldstone and the stateside pass. At 18:29, this is Skylab Control.

8L-II NC338/1 Time: 13:50 CDT, 12:19:50 GMT 6/5/73

This is Skylab Control; 18:51 Greenwich Still 39 minutes or so, away from acquisition mean time. at Goldstone. The following is a summary of the private conversation held earlier today with the crew of Skylab. the request of spacecraft commander Conrad, a private conversation was conducted during the Guam pass between 15:51 and 15:58 Greenwich mean time, on Tuesday June 5. Present for the conversation was Skylab Program Director William C. Schneider, Johnson Space Center Director Dr. Christopher C. Kraft, Jr., Donald K. Slayton, JSC Director of Flight Crew Operations, and Dr. - Dr. Royce Hawkins, Deputy Director of Live Scionces at Johnson Space Center, and Donald Puddy, Flight Director. The conversation was also monitored by public affairs office personnel. purpose of the conversation was Conrad's desire to discuss with management some interpretations of medical data previously covered with the crew by the flight surgeons. Conrad said he was upset because in his opinion, medical personnel were overly concerned about some data indicating premature ventriccular contractions (PVCs) that had been observed earlier in the mission during the M171 ergometer medical experiment on Conrad in the high heat environment of the spacecraft at the time. Conrad had exhibited some premature ventricular contractions during the highest level of the ergometer exercise. At the time, medical personnel diagnosed the condition as something that was consistent with a normal physiological response to the workload and environment that existed. They felt it was of no immediate concern. As a prelude to the EVA plan for Thursday, medical personnel and NASA management felt it would be prudent to confirm the earlier diagnosis of normal response and schedule a second M171 exercise with Conrad for today. Instructions concerning the experiment received by the crew last night, lead Conrad to believe that the medical personnel were overly concerned about the condition. Conrad asked Dr. Kraft for clarification of the medical situation as it was understood on the ground. Reasons for the medical protocol were described by Dr. Kraft. Conrad and Scientist Astronaut Joe Kerwin, the physician onboard, responded by noting that their own evaluation was that the crew - the health of the crew was excellent, both in terms of how Conrad personally felt and as far as Dr. Kerwin's medical diagnosis was concerned. They further said that they wanted to maintain as much exercise as possible to keep themselves in the best condition for reentry and post flight adjustments. Dr. Kraft expressed regret that the crew misunderstood the information provided by medical personnel, and had received the implication that

SL-II MC558/2 Time: 13:50 CDT, 12:19:50 GMT 6/5/73

the ground personnel were overly concerned about their health. Kraft reported that the ground confirmed that the crew was in fact considered to be in excellent health. Conrad replied that he felt better about the situation and had wanted to hear this directly from Dr. Kraft. "We're in super shape," Kerwin added. At 3 p.m. in the Houston News Center, a medical representaive will hold forth for a medical briefing. That's 3 p.m. central daylight time, about an hour from now in the Houston News Center. At 18:55 Greenwich mean time, 34 minutes from Goldstone, this is Skylab Control.

8L-II NG-559/1 Time: 14:27 CDT, 12:19:27 GET 6/5/73

This is Skylab Control; 19:27 Greenwich mean time. Two and a half minutes now away from acquisition at Goldstone, an offshore pass out in the Pacific, 300 or 400 miles, missing the coast of California and Baja California on revolution 320. Doesn't cross land until the coast of Chile in South America. Standing by for the final continental U.S. station's pass. There goes the warbler, warning flight controllers of acquisition within 2 minutes. At 19:28 and standing by, Skylab Control.

CC Skylab, Houston; AOS for 10 minutes. CC Skylab, Houston; AOS for 10 minutes.

CC CDR, Houston. CC CDR, Houston.

6/5/73 Skylab, we'll be dumping the tape recorder CC in a few minutes over Texas. SC Houston, CDR. CC Go, CDR. SC Okay, would you look at the status of PIRF 57 CC Wilco. Never mind it; I took care of it I guess. SC I came up here and tried the (garble). Now, never mind (garble). It is on and - I'm - - not exactly sure what's going on. Looks all right. CC Okay. And CDR we have some information for startracker reacquire after solar inertial. SC Go ahead. CC Inner gimble is minus 8; outer gimble 16 plus 1324. That's right. You were cut out. S C Was that first one minus 0008. CC That's affirmative. SC And plus 1324. CC That's affirmative. CC And CDR, CBRM 5 looks good to us. just hasn't tripped back just before it went into night. Okay. SC Houston, CDR. CC Go, CDR. That star is still good from - I've got six SC pads, I don't know which one's which. Day 35 to night 07. Pete, apparently we didn't get all your message. Would you say again? I was just verifying that that stan good time was still as the original pad this morning, that's in respect to when it's available. Pete, that pad is good and we're going LOS here in 1 minute. Vanguard at 19:56. S C Roger, Houston. PAO This is Skylab Control; Greenwich mean time 19 hours 45 minutes. We've had the last stateside pass

for the day as the spacecraft nears the end of it's 320th ravolution. Next pass will be over Vanguard in 11 minutes.

This is Skylab Control; Greenwich mean time 19 hours 45 minutes.

END OF TAPE

L-11 MC560/1

14:32 CDT. 12:19:32 CMT

: on the

SL-II MC561/1 Ilmai 14:55 CDT, 12:19:55 GMT

PAG 19 hours 55 minutes. We have acquisition at the Vanguard Tracking Station for a 7-1/2 minute page. We'll hold the line up for conversation between CAPCOM Dr. William Thornton and the Skylab crew.

CC Skylab, Houston. A08 6 minutes.

SC Roger.

CC CDR, Houston.

SC Go ahead.

CC After a great deal of digging here in the history of the teleprinter, it appears that line 21 on the EREP pad was repeated. And it appears that it can be repeated up to three times, and they say that a line will never be deleted. And it's pretty difficult though to get the history of just what has happened.

Okay, I think it's more just that you have thoughts of the other crew's, and they goes through those pads very carefully for double and triple same entries, because if you haven't gone through it and you're running on the time line, it's real easy to trip up over that. (Ga sle) idea (garble) in ten seconds it's going to (garble).

CC Wa copy Joe - Pete.

CC And just for information, Pete, we've got a complete on CBRM 5.

SC Roger.

CC PLT, Houston.

SC Go ahead, Houston.

CC Just a reminder before we begin S019 OPS. We need a lockon on the star.

SC Okay, I'll see if I can find it for you.

CC Copy.

CC Skylab, LOS in 1 minute; Hawaii at 21:04.

SC Roger.

PAO This is Skylab Control; Greenwich mean time 20 hours 5 minutes. We've had lose of signal over the Vanguard Tracking Station with the next acquisition of a signal over Hawaii in 1 hour from now. On the previous stateside pass, Commander Conrad alerted to the ground that he had a BATTERY CHARGE light on number 5 CBRM. However, on this pass he was advised that battery 5 is okay, and everything looks good. This is Skylab Control; Greenwich mean time 20 hours 5 minutes. There will be a press conference in the News Room of building 1 with Dr. Royce Hawkins, Deputy Director of Life Sciences at the Johnson Space Center. This is Skylab Control; 20 hours 5 minutes.

SL-II MC-562/1 Time: 16:02 CDT, 12:21:02 GMT 6/5/73

This is Skylab Control, Greenwich mean time 21 hours two minutes. We enticipate acquisition of signal from the Skylab space station as it passes over the Hawaii tracking etation on it's 320th revolution. We have Cap Com Dr. William Story, and also at the Cap Com console this afternoon is Rusty Schweickart, Astronaut Rusty Schweickart. We'll leave the line up for any live conversation.

Company of the state of

CC Skylab, Houston. AOS six minutes.

CDR Roger, Houston.

CC And Skyleb, we'll be dumping the recorder

over Vanguard.

CDR Roger, Houston.

CDR Do you have the TV, Houston?

CC Stand by.

CC That's affirm, Pete.

CDR What you guys sending up in the teleprinter? It's swashing and dancing at my feet.

CC Pete that's okay as long as it's only the

teleprinter.

OR Okay, I've got a question for you on the ATM. I didn't get any SO54 filter information for building block 13, so I assume you just want to run filter 1 twice. Is that correct?

CC Stand by.

CC Pete, we think you should be in building

block 23 which has the information.

CC If you should be in 13, in 13, why then alternate between filters 1 and 3.

CDR I think you're right, I read it wrong.

I'm in 13 (garble)

CC

CC We copy.

We're going LOS and we'll see you at the

Vanguard.

CDR Roger.

This is Skylab Control, 21 hours 11 minutes We have lost signal, Skylab space station with the tracking station at Hawaii. Our next acquisition will be at the Vanguard tracking station 21 minutes from now. Science Pilot Joseph Kerwin is currently performing the M-131 human vestibular function experiment. This is one of the two neurophysiology experiments Doctor Kerwin is conducting during the flight. He is the only one wearing the 133 sleep cap, sleep monitoring experiment. Pilot Paul Weitz is observing as Dr. Kerwin rides the rotating litter chair. Commander Conradis at the C&D panel of the Apollo telescope mount. With acquisition at Vanguard in 20 minutes, this is Skylab Control, Greenwich mean time 21 hours 12 minutes.

SL-II MC-563/1 Time: 16:30 CDT 12:21:30 GHT 6/5/73

PAO This is Skylab control, 21 hours 30 minutes. We expect acquisition of signal over the Vanguard tracking station as the Skylab vehicle concludes its 320th revolution. Capcom is Dr. William Thornton.

CC Skylab, Houston. A08 10 minutes.

CDR Roger.

CC Pete, we'd like for you to confirm for up that the teleprinter is still legible, and behaving normally.

CDR (garble).

CDR Looks good to me, Bill.

CC Say again.

CC PLT, we're not receiving TV at

Vanguard.

PLT Hey, you're getting it now. Seems the TV 19 is OGI only, and we were done with that, so here comes a little MS.

CC Yeah, we're getting it now.

PLT We (garble) away. We just tripped out the chair. We're waiting for a fault light to reset.

CC Copy.

PLT (garble) is 11 set of head movements without interruption in the middle of one symptoms, which is quite a bit more than you've got on the ground.

CC We copy that.

CC We will be LOS in one minute. Hawaii at 22:39.

This is Skylab Control, Greenwich PAO mean time 21 hours 43 minutes. We have had loss of signal at the Vanguard tracking station. Pilot Paul Weitz was describing to the ground a series of tests that Joseph Kerwin was undergoing on the M131 experiment, the vestibular function test. Science Pilot Kerwin was performing the motion sensitivity mode where he sits in the rotating chair, and does a series of prearranged head movements and Weitz reported that Kerwin had completed 11 sets of head motions without any symptoms. Quite a bit more than he has done on the ground. The head movements are continued until either a present value is reached on the response or 30 head movements series are completed. And at this point Science Pilot Kerwin had completed 11 of them. At Greenwich mean time 21 hours 44 minutes, this is Skylab Control.

\$L-II HC-564/1 Time: 17:38 CDT 12:22:38 GHT 6/5/73

This is Skylab Control, 22 hours
In minutes Greenwich mean time. We expect acquisition of
the Skylab space station in approximately 1 minute over
the Hawaii tracking station for a pass of 10 minutes in
duration. Capcom Dr. William Thornton is on the console
this afternoon. We anticipate long discussions tonight with
Rusty Schweickart, backup Commander for Skylab II with
the Skylab crew to go over EVA details planned now for
Thursday, June 7th. We'll hold the line up for conversation.

CC Skylab Houston. AOS 10 minutes.

CDR Hi Houston.

CC CDR, Houston. We have a change on

the ATM schedule pad for you.

CDR Go ahead.

CC At 22:22 lines 15, 16 and 17 left, delete. Those lines are "go to auto sequence hold PRI to ESS."

CDR I'm not sure I understood you Houston. I don't see that on my pad.

CC Pete, that's at the bottom of the pad you're on now. And simply delete "go to auto sequence hold PRI to ESS."

CDR Oh, okay I'm with you. I thought you were up at the top.

CDR Let me know when you have the XUV MON.

CC Copy. And we have TV now Pete.

CDR Okay, coming at you (garble).
CDR Say Bill, I have a request to Houston.

CC Go ahead Pete.

CDR We don't normally look at the teleprinter after we pick up the messages in the morning unless you tell us there is a message there. And we missed message 1226 Alfa 033 general message M171 today on account of that, because we had picked up our messages and because we had such a busy morning nobody was paying any attention to the teleprinter. Unless you're thinking about it, you don't even hear it run. And it's my request that any time you send a message up during the day, would you please tell us about it by voice at the first opportunity. Otherwise we're liable to miss it.

CC Wilco Pete.

CDR That's it. Yeah, one of the things you asked me on the teleprinter, it wasn't until the last pass, that I bothered even looking (garble) teleprinter nor did anybody else today.

8L-11 MO-365/1 Time: 17:45 CDT, 12:22:45 GMT 6/5/73

CC Skylab, Houston. The tape recorder will be dumped over Vandanberg on your next pass. And also, we want the VTR POWER OFF at your convenience. We'll be soing LOS in 1 minute. Vanguard at 23:11.

Roger, Houston, that's the VTR POWER is OFF. CDR CC Canterra, voice control, by the way. PAO This is Skylab Control 22 hours 50 minutes Greenwich mean time. As the Skylab space station passes over Hawaii, which will be the final - next to the final pass for the day. The next pass one hour from now will be a brief 50 second pass. Next acquisition will be over the Vanguard tracking station. As the crew prepares their evening meals of -Pilot Weitz will be having filet mignon with strawberries and Commander Conrad will have prime ribs of heef with ice cream. poteto salad and Science Pilot Kerwin will be having filet mignon with green beans and pears. Scheduled on successive passes later this evening over Vanguard, Ascension, and Guam, we anticipate conversations between the Skylab crew and Cap Com in going over the procedures for the proposed EVA on Thursday. Next acquisition over Vanguard in 20 minutes from new. This is Skylab Control, Greenwich mean time 22 minutes 51 minutes.

SL-II NC-366/1 Time: 18:08 CDT, 12:23:08 GMT 6/5/73

PAO This is Skylab Control, Greenwich mean time 23 hours 9 minutes. As Skylab will - expected to come into acquisition of the Vanguard tracking station. We will leave the line up for conversation between Cap Com Hank Harts-field and the Skylab crew.

CC Skylab, Houston through Vanguard 8-1/2

minutes.

CDR Hello there, Henry. How are you tonight?

CC Okay, how about yourself?

CDR Super good.

CDR What's going on in the world? We haven't got any news to speak of.

CC Well, it's the same old thing as when you left.

CDR That's good.

CC Skylab, Houston. We're about one minute from LOS. We'll have a real rhort pass at Hawaii at 23. If we miss that one, we'll be back here at Vanguard at 49.

CDR Okay.

This is Skylab Control, Greenwich mean time 23 hours 19 minutes. We have loss of signal at the Vanguard tracking station. Next acquisition will be over Hawaii one hour and 2 minutes from now. When the spacecraft passes over the Vanguard tracking station again in one hour and 29 minutes, it is anticipated they will have approximately 45 minutes in discussing with the ground review of the proposed EVA for Thursday morning June 7th. At Greenwich mean time 23 hours 20 minutes, this is Skylab Control.

SL-II MG-367/1 Time: 18:37 CDT 12:23:37 GMT 6/5/73

PAO This is Skylab Control. Greenwich mean time 23 hours 37 minutes. We have a report fellowing the review of onboard data of Commender Pete Conrad's M171 activity today. The H171 metabolic ergometer experiment was successfully accomplished today by spacecraft Commander, Pete Conrad. Dr. Royce Hawkins, Deputy Director, Johnson Space Center Life Science Director, and Dr. Robert L. Johnson JSC cardiologist and Principle Investigator for Mo92 experiment report Conrad's test today revealed normal cardiovascular activity without any of the premature ventricular contractions seen on Conrad's previous M171 exercise corducted on May 29th. Today's M171 experiment was conducted at the same work load as Conrad's preflight baseline measurements and previous inflight tests. The H171 experiment involved 5 minutes at each of 3 work levels with a recovery period of 5 minutes following the maximum work level. Dr. Hawkins and Dr. Johnson are quoted as saying "We see nothing of medical nature that would preclude Commander from performing the planned EVA on Thursday." the end of the medical statement. At Greenwich mean time 23 hours 38 minutes.

\$L-11 MC-569/1 Time: 19:44 CDT 13:00:44 GMY 6/5/73

PAO This is Skylab Control. Greenwich mean time 00:44 minutes. During the change of shift briefing with Flight Director Don Puddy, we had a pass over the Hawaii tracking station, a very brief pass for 56 seconds. We'll play that tape and during this LOS period, astronaut Rusty Schweickart has been describing to the flight controllers in the Mission Control Center a TV clip of operations he and Ed Gibson performed in the neutral buoyancy facility at the Marshall Space Plight Center on the various modes of the EVA to be carried out by the Skylab crew on Thursday. We'll bring up that Hawaii pass and stand by for discussions between Rusty Schweickart and the crew on the EVA review scheduled to begin at the Vanguard pass.

Skylab Houston through Rawaii for

a minute or so.

CDR Roger Houston.

CC Skylab Houston. The clock shows about 10 seconds from LOS. Vanguard will be next 49 for s data recorder dump.

CDR Roger, Roger.

And we'll have some EVA words there CC

too.

Okay, we've got a whole bunch of gear laid out here already.

This is Skylab Control with acqusirion at Vanguard shortly. Ve'll hold the line up for a 10 minute pass over Vanguard.

CC Skylab Houston at Vanguard. How do you

read?

CDR Okay, Roger.

CDR Well, Rusty we've assembled all the bits and pieces and we do have a few questions. Have you got anything for us first?

Okay, we're ready for your questions SCHWEICKART and we've got some additional data for you. Let me just say that Ed Gibson has been honchoing most of the hardware assembly and that kind of stuff, so he's here to answer those questions.

CDR Okay, we finally figured out the brass rod trick. And our quest'on is, how far from the mushroom down the pole do you rig it?

Okay, just above the locking nut you need it right down near the end, and that way you've got enough slack in the line to put it over your head if you want to, that is run the line over your helmet behind you, and you can still cinch it down to the line, to the end of the pole.

CDR You lost me there. SL-11 NG-369/2 Time: 19:44 CDT 13:00:44 GHT 6/3/73

MUC Pete, I think your question was how far do you put that double prong tool from the mushroom. Is that your question?

CDR That's the question.

MCC Yeah. That you can put right down next to the mushroom, as long as you've got the - on the rod and you need the double prongs away from the mushroom so that you can put the rope underceath it and use that as a - wedge your rope underneath it and use it as a clete. The whole objective there is just to find a way of securing that rope taut once you're out there.

CDR Okay, the rope is attached to the clippers.

CDR Okay, now we took the hose clamp off the thing and it's barely going to make it. Ours may not be quite the same as yours, and it didn't have enough serrations in it to screw it, I don't think, all the way tight. We'll get it as tight as we can. And then you've got the 2 prongs are perpendicular to the pole with the attached ends pointed towards the mushroom. Is that correct?

MCC That's right. The attached end towards the mushroom. And you've got several options there to make it tighter. You can wrap a little taps around it or some of that safety wire. Probably tape would do it, give you a little extra circumference there and it would just tighten down on the clamp.

CDR Okay.

MCC And also if that does not look as though it's tight enough Pete, it you look on the regulator on the MO92, right - the big black hose coming off the back of the regulator, there's a smaller hose clamp there and you might want to look at using that one.

CDR Okay.

SL-II NG-570/1 Time: 19:52 CDT 73:00:52 ONT 6/5/73

HGC -hose coming of the back of the regulator, there's a smaller hose clamp there and you might want to look at using that one.

Jos's got one for you. CDR Okay. SPT Well, yes, when you add the 24 feet to the clipper rope, are we running an endless rope down to the crewmen end of the pole, or just one rope? MCC No, you're running an endless rope, but your option is to where you want to cut it. All you really need though in something which will reach down to the mushroom and it's your choice as to whether once you're out there, you want to loop the rope over you and behind you, or whether you just want to keep it right out - all out in front of you. We gave you an extra 4 feet there from what you'd really need if you just added 10 foot with the pole. I think you may want to assemble that gear and figure out exactly how you're going to use it, make those lengths fit what you want. We gave you what we felt was the maximum you could ever use.

SPT I'd like to hear a very brief discription of your technique. EVA and assembling the pole and handling the rope and a little curious what after the work site.

MCC Okay, I'll tell you what. We got some things here which we'd like to amplify. Our description - Rusty's got a whole host of things here to give you a general idua of some of the things not included in the pad, and I'd like to just start at A and B and amplify some of those items rather quickly, and then Rusty will hit the details of the EVA procedures himself.

SPT GO.

MCC Okay, first to let you know what the schedule is, as you see on the pad you got, we got a EVA sim tomorrow morning. The main objective of that is to assemble the parts, cut and tie the ropes. After you get all of that done and assembled, you can maneuver them around in there, hook it to the floor grid from the aft compartment of the airlock, you know, to simulate grabbing something 25 feet away. And we've got two real time TV capabilities there plus the VTR and if you got a pencil, I'll give you the AOS on the real time TV.

SPT Go shead.

MCC

Those - Okay 15:33 to 15:49 and on the next rev you got 17:10 to 17:26. At that time you should - we're picking up rual time TV and you can show us anything you got a question on or uncertainty about. Show us a better idea you came up with or whatever. In any case you can show us what you got, and we'll be glad

\$L=11 MG-570/2 Time: 19:52 UDT 13:00:52 GHT 6/5/73

to answer any questions.

CDR Okay, we've got all the gear assembled in the experiment upper area right now. And we were just in the process of putting it together and talking it over. Go shead.

MCC Okay, on Wednesday evening, then, you got, as I say, you got 3 hours tomorrow morning for fooling around, then Wednesday evening we're doing most of the EVA prep that we can do, in order to shorten the prep on Thursday morning.

CDR (garble)

MCC Okay, also, of course, tomorrow morning after you get a look at the use of this stuff we would like your evaluation on it, and if there's any reason that you feel you'd like to have a longer time, like run it on Friday or something, just let us know and that's within the scheme of things.

CDR Okay.

MCC The nominal plan, however on Wednesday evening you'd be prepping for the . VA and stowing the airlock, positioning the suits and the ALSA and all that. On Thursday morning, we have a normal wakeup time. We got about 2 hours and 50 minutes for final prep. And then we've got schedule blocked out four hours to the EVA. The plan is to open the hatch at sunset, which then gives you on the order of 30 minutes to do the initial work in the lighted area, in the FAS and around the FAS and around the discone antenna. This then will give us a maximum capability for going down the side of the workshop and getting the SAS beam up during the full daylight pass. So the nominal hatch open on the EVA will be Thursday morning, 15:37 Zulu. Okay, we also have some additional EVA tasks which we have not talked about yet, but which I know you're aware of. number 4. The first one is to pin open the SO54 door so that we can go back to a nominal operation on the auto door. The second one is to retrieve and replace the SO82A film. That will be low priority, that is, we will do that only if everything else goes okay and you feel that you're in good enough shape to go on out and do that, but we do have plans to go ahead and stow the SOS2A film in the aft compartments so that you can go on down to the Sun end and take care of that.

SPT What's wrong with the 82A film?

MCC Okay, this is the 82A which has some indication of the camera not working at this time, and they would like to replace the 82A magazine.

SPT Oh, well that's the first we heard of

SL-II MC-568/1 fime: 1839: GDT 12:23:59 GHT 6/5/73

PAO This is Skylab Control, Greenwich mean time 23 hours 59 minutes. Flight Director Don Puddy, Flight Director of the Silver Team, is on route to the Building 1 News Room for a change of shift briefing to start at 7:00 p.m. central daylight time. This is Skylab Control 23 hours 59 minutes.

#L-II NG-369/1 Time: 19:44 CDT 13:00:44 GHT 6/5/73

This is Skylab Control. Greenwich mean time 00:44 minutes. During the change of shift brief-ing with Plight Director Don Puddy, we had a pass over the Hawaii tracking station, a very brief pass for 56 seconds. We'll play that tape and during this LOS period, astronaut Rusty Schweickart has been describing to the flight controllers in the Mission Control Center a TV clip of operations he and Ed Gibson performed in the neutral buoyancy facility at the Marshall Space Flight Center on the various modes of the EVA to be carried out by the Skylab crew on Thursday. We'll bring up that Hawaii pass and stand by for discussions between Rusty Schweickart and the crew on the EVA review scheduled co begin at the Vanguard pass.

· " (144)

CC Skylab Houston through Hawaii for

a minute or so.

CDR Roger Houston.

CC Skylab Houston. The clock shows about 10 seconds from LOS. Vanguard will be next 49 for a data recorder dump.

CDR Roger, Roger.

CC And we'll have some EVA words there

too.

CDR Okay, we've got a whole bunch of gear laid out here already.

PAO This is Skylab Control with acqusition at Vanguard shortly. We'll hold the line up for a 10 minute pass over Vanguard.

CC Skylab Houston at Vanguard. How do you

read?

CDR Okay, Roger.

CDR Well, Rusty we've assembled all the bits and pieces and we do have a few questions. Have you got anything for us first?

SCHWEICKART Okay, we're ready for your questions and we've got some additional data for you. Let me just say that Ed Gibson has been honchoing most of the hardware assembly and that kind of stuff, so he's here to answer those questions.

CDR Okay, we finally figured out the brass rod trick. And our question is, how far from the mushroom down the pole do you rig it?

MCC Okay, just above the locking nut you need it right down near the end, and that way you've
got enough slack in the line to put it over your head if you
want to, that is run the line over your helmet behind you,
end you can still cinch it down to the line, to the end
of the pole.

CDR You lost me there.

*SL-II MO-369/2 Time: 19:44 CDT 13:00:44 GMT

MCC Peta, I think your question was how far do you put that double prong tool from the mushroom. Is that your question?

CDR That's the question.

MCC Yeah. That you can put right down next to the Kushroom, as long as you've got the - on the rod and you need the double prongs away from the mushroom so that you can put the rope underneath it and use that as a - wedge your rope underneath it and use it as a clete. The whole objective there is just to find a way of securing that rope taut once you're out there.

CDR Okay, the rope is attached to the clippers.

and tupe one rope, the one coming down from the cutters so you know which one to pull on. Once you get out there and hook it over the strap and pull it taut, then you want to have it stay tight while EV 1 goes down the five poles. So the objective there is to have something right close to the mushroom which you can wrap the rope around and have a little friction locking device for the rope, just like a clete.

CDR Okay, now we took the hose clamp off the thing and it's barely going to make it. Ours may not be quite the same as yours, and it didn't have enough serrations in it to screw it, I don't think, all the way tight. We'll get it as tight as we can. And then you've got the 2 prongs are perpendicular to the pole with the attached ends pointed towards the mushroom. Is that correct?

MCC That's right. The attached end towards the mushroom. And you've got several options there to make it tighter. You can wrap a little tape around it or some of that safety wire. Probably tape would do it, give you a little extra circumference there and it would just tighten down on the clamp.

CDR Okay.

MCC And also if that does not look as though it's tight enough Pete, if you look on the regulator on the MO92, right - the big black hose coming off the back of the regulator, there's a smaller hose clamp there and you might want to look at using that one.

CDR Okay.

8L-11 NG-570/1 Time: 19:52 CDT 13:00:57 GHT 6/5/73

MCC -hose coming of the back of the regulator, there's a smaller hose clamp there and you might want to look at using that one.

Joe's got one for you. CDR Okay. SPT Well, yes, when you add the 24 feet to the clipper rope, are we running an endless rope down to the crewman end of the pole, or just one rope? MCC No, you're running an endless rope. but your option is to where you want to cut it. All you really need though is something which will reach down to the mushroom and it's your choice as to whether once you're out there, you want to loop the rope over you and behind you, or whether you just want to keep it right out - all out in front of you. We gave you an extra 4 feet there from what you'd really need if you just added 10 foot with the pole. I think you may want to assemble that gear and figure our exactly how you're going to use it, make those lengths fit what you want. We gave you what we felt was the maximum you could ever use.

SPT I'd like to hear a very brief discription of your technique. EVA and assembling the pole and handling the rope and a little curious what after the work site.

MCC Okay, I'll tell you what. We got some things here which we'd like to amplify. Our description - Rusty's got a whole host of things here to give you a general idea of some of the things not included in the pad, and I'd like to just start at A and B and amplify some of those items rather quickly, and then Rusty will hit the details of the EVA procedures himself.

SPT GO.

MCC Okay, first to let you know what the schedule is, as you see on the pad you got, we got a EVA sim tomorrow merning. The main objective of that is to assemble the parts, cut and tie the ropes. After you get all of that done and assembled, you can maneuver them around in there, hook it to the floor grid from the aft compartment of the airlock, you know, to simulate grabbing something 25 feet away. And we've got two real time TV capabilities there plus the VTR and if you got a pencil, I'll give you the AOS on the real time TV.

SPT Go ahead.

MCC Those - Okay 15:33 to 15:49 and on the next rev you got 17:10 to 17:26. At that time you should - we're picking up real time TV and you can show us anything you got a question on or uncertainty about. Show us a better idea you came up with or whatever. In any case you can show us what you got, and we'll be glad

SL-11 NG-570/2 Time: 19:52 CDT 13:00:52 GMT 6/5/73

to answer any questions.

CDR Okay, we've got all the gear assembled in the experiment upper area right now. And we were just in the process of putting it together and talking it over. Go shead.

MCC Okay, on Wednesday evening, then, you got, as I say, you got 3 hours tomorrow morning for fooling around, then Wednesday evening we're doing most of the EVA prep that we can do, in order to shorten the prep on Thursday morning.

CDR (garble)

MCC Okay, also, of course, tomorrow morning after you get a look at the use of this stuff we would
like your evaluation on it, and if there's any reason that
you feel you'd like to have a longer time, like run it on Friday
or something, just let us know and that's within the scheme
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MCC The nominal plan, however on Wednesday evening you'd be prepping for the EVA and stowing the airlock, positioning the suits and the ALSA and all that. On Thursday morning, we have a normal wakeup time. We got about 2 hours and 50 minutes for final prep. And then we've got schedule blocked out four hours to the EVA. The plan is to open the hatch at sunset, which then gives you on the order of 30 minutes to do the initial work in the lighted area, in the PAS and around the FAS and around the discone antenna. This then will give us a maximum capability for going down the side of the workshop and getting the SAS beam up during the full daylight pass. So the nominal hatch open on the EVA will be Thursday morning, 15:37 Zulu. Okay, we also have some additional EVA tasks which we have not talked about yet, but which I know you're aware of. They number 4. The first one is to pin open the SO54 door so that we can go back to a nominal operation on the auto door. The second one is to retrieve and replace the SO82A film. That will be low priority, that is, we will do that only if everything else goes okay and you feel that you're in good enough shape to go on out and do that, but we do have plans to go ahead and stow the SO82A film in the aft compartments so that you can go on down to the Sun end and take care of that.

SPT What's wrong with the 82A film?

MCC Okay, this is the 82A which has some indication of the camera not working at this time, and they would like to replace the 82A magazine.

SPT Oh, well that's the first we heard of

81-11 MC-370/3 Time: 19:52 CDT 13:00:52 GHT 6/3/73

that, Rusty, Okay.

tinuous operate light. The third - and the frame counter The third item is to observe and do some television of the
parasol geometry and condition, and also the SAS panels
after the beam is up. We will therefore be planning to include the television camers and a 30 foot cable in the lock
compartment and again, following the successful SAS beam
deployment, we'll go down and take a look at the good job
you did. Okay, and the fourth one, which is a relatively
minor one, is to get a good look at the CSM quad A and Pete, we're
working out the geometry, but it looks as though you can do
that from the FAS foot restraints, just looking right through
the trusses.

CDR What's the matter with Quad A?

MCC The temperatures appear to be running anoman susly high on it. And we're at this moment 18 seconds from LOS at Vanguard, and we'll see you again at Accension here. Standby I'll give you the time. Okay it'll be 03 at Ascension.

CDR 03 at Ascension. One of the questions I want answered is where this pin is on the antenna?

MCC Okay, fine. We'll give you the description of that.

CDR Okay.

time 00:59 minutes. Astronaut Rusty Schweickart describing to Commander Pete Conrad the assembly procedures necessary to put the EVA gear together for the proposed EVA on Thursday. to repair the orbital workshop solar array panel. Astronaut Schweickart told the crew they would have two live passes on Wednesday, during which time the crew can show the ground the assembled gear and answer any further questions. These passes will be at 10:33 a.m. on Thursday morning, and 12:10 noon. (garble) that. That's 10:33 a.m. Wednesday and 12:10 p. m. central daylight time, Wednesday. We have another pass over Ascension in approximately 2 minutes. We'll hold the line up for that pass.

SL-II MC-571/1 20:01 CDT, 13:01:01 GMT Time: 6/5/73

CC Skylab, Houston at Ascension, SPT Okay, Houston. Rusty are you ready for your 30 seconds? I want to pass on that Paul has had a apparent failure of his urine separator to perform properly. Ιt does not develop any suction in the receiver, and in the absence of further clues and he plans to change out the separator. Now, go ahead. CC Okay, we got that and before we start on

the EVA, let me give you a star tracker pad.

SPT (Garble)

CC Okay, the star is - -

CC Okay, are you ready to copy the star tracker

pad?

SPT Yep.

CC Okay, the star is Achernar. And it's 52012, 50,000. It's available day 40 plus 00 to night 0900; outer gimbal is plus 1422; inner gimbal plus 0007; and that's valid day 157 0000 to 1000.

SPT (Garble)

CC Okay, you got it?

CC Okay. - -SPT (Garble)

Okay, here we go. If you - let me just CC tell you what's coming up quickly tonight. We're sending up additional data related to the prep and post, related to the ATM configuration and re-configuration afterward. You recognize that we are now not on day-26 where we configured just to a POWER DOWN, but we will be reconfiguring after the EVA to normal operation, so that means a change in the checklist, there. be drying the LCG's instead of trashing them. We are planning to use the aft mirlock compartment - that is, using the OVS hatch and therefore the things that were struck from the checklist which relegated us only to the lock compartment, will be rescinded and you'll see that. And we'll also have some additional procedures for Paul to read for EV-3 to read to perform the 5054 door opening. The 82-A change-out and television that I men-And Ed would like to go ahead with some of the assembly details here on the equipment.

MCC Okay, just a note before we start on this. You may have noticed that all throughout the procedures is a not a consistent level of detail. And what we've done is specify the detail when we feel it'd save you time and effort outside. The important on the see judgements such as umbilical management, avoidance of sharp edges, or avoidances of S-IVB skin damage, we've not attempted to detail. We'd like your feelings also, afterwards on what level of detail you'd like for the extra four tasks which we've specified. We can give

SL-II MC-571/2 Time: 20:01 CDT, 13:01:01 GMT 6/5/73

you a good level of detail on the teleprinters if you feel you need it.

Marie .

CDR

Ed, if you want this whole thing
from one end to the othem. Or if you're going to (garble)

MCC

Yeah, we've worked it from one end to the
other. I've worked it twice in the water and Rusty's gone
through it three times.

I'm talking about doing SO82-B and looking at the quad and so forth and so on, and put all of this TV and this stuff in the airlock. It sounds to me like we're getting Fibber McGee and Molly's closet in there, but that's a (garble)

MCC

No, we'll have a - Scott's been working that end of it and says it can be done if you open up the aft airlock.

SPT

Go sheed with your procedures are the services of th

Go ahead with your procedural notes there. Okay, on item A. The length of those ropes. MCC We've allowed some time for not some extra space in there for knot tying, and I suggest what you do is figure out functionally what each one of those ropes is going to do and run yourself a little C-square, S-square to fit it to how you really want to operate it. Down there on item five we call off six five-foot EVA sail rods, that's five rods we'll actually use. We've got one backup. We have three SEVA rods left and two extra sail rods, so we're not digging into the double pole sunshade rods. However, we're going to bring all five of those back in, so we'll still have them left. Item 17, SEVA shepherd hook. not mentioned anywhere from here on out and the EVA is strickly as a backup to the cutters. In case we have problems hooking the cutters over a strap and securing a good translation path down to the strap, we can use the shepherd hook and you have to retract the five rods, get down to the airlock, get the shepherd hook, put it on, and then run it along the - underneath the beam and you'll pick up about once every foot and a half, a location that'll hold. However, you'd have to keep tension on the pole at that point because otherwise you'd lose it.

SPT How would you keep tension on the pole?

MCC Well, EV-2 has to hold tension on the pole
all the way. We don't recommend that but it is a backup method
in case you have problems, with the cutter method.

SPT What is EV-2's security?

81-11 MG-\$72/1 Time: 20:08 CDT 13:01:08 GMT 6/5/73

GIBSGN We don't recommend that, but it is a backup method in case you have problems with the cutter method.

SPT What if EV 2 secures the near end of the pole under the normal circustances? We've got a waist tehter put on there which has got the large Apollo hook between the mushroom and the double prong tool, and the other end with the small Apollo hook fits down into that same pin at the base of the discone antennae. That pin was used to hold a - to hold the top part of the discone antennae during launch. When you approach that area you will notice the pin down on your lower right if you have the discone antennae going up straight from your foot to your head. In other words if your head is up - no your axis is along the discone antennae and your head pointed towards the end of it, you'll notice right in the FAS reef ring, about a foot and a half down, a small pin. It's about one of the only things you've got around that you can tether on.

SPT Okay, can we use the discone antennae as a handhold?

GIBSON You can, you can put something like - 4 foot up - about 40 pounds or so.

SCHWEIKART That's a factor of safety too, at

that point.

SPT Okay.

MCC Oksy, other straps or restraints. You may want to come up with other ways of bundling loose rope for ingress. We've not tried to call that out. You can either use bungees, strape or even take out tape if you desire. Spares, it's your choice as to whether you want to take out more than one extra rod, an extra pinch bar, or extra tape.

SPT Okay.

there is two major pieces of hardware, the cutter, you should have 5 poles, and a BET. Item 1, we put the tape on the jaw in order to protect the skin of the SIVB as you're sliding that down there. Item 2, the two prong pole, the tool, I think we've discussed using that as a cinching tool. Item 3, it's your choice as to how you put those sail rods together. Rusty and I used it like you use tape and put it together like a hamel belt. However, seeing that you folks will be putting that back into the airlock and then having to go back out again, we recommend that you use bungees or aprings or some other method which will allow you to repack it on ingress and keep it all tied down

8L-II NC-572/2 Time: 20:08 CDT 13:01:08 GHT 6/5/73

tight.

SPT Are you talking about the rope that's on the cutter?

MCC We're talking about the EVA sail rods at that point, and how you bundle those and keep them secured and you know bundled in the airlock before you go

out. It will look real good.

SPT Okay. Press on.

MCC

DET. You'll have to - that 6 foot rope - you should allow it to slide through the 32-foot rope so that the load is distributed equally on the 6 foot rope. You may want to tie knots around 6 inches or so on each side of the center of the 6 foot rope. That gives you an ease of handling, that is the 6 foot rope won't slide through one way or the other all the way. And it also prevents large changes of length if a small hook slips out while you are putting tension on the BET. That's your own discretion.

SPT Okay, we understand all that.

MCC Okay we're coming up to 20 minutes,

20 seconds to LOS. Do you have any questions before we go
over the hill?

SPT I'm curious what position the two of you took when you put the rod together?

MCC Okay Joe, we're going to have to hit that tomorrow during the 3 hour period. You've got Guam at 49 coming up with the evening status report. We'll see you tomorrow morning.

SPT Roger.

PAO This is Skylab Control. Greenwich mean time 1 hour 13 minutes. Over the Ascension pass just concluded, astronaut Ed Gibson, backup Science Pilot for Skylab II, went over the assembly instructions for the various tools the Skylab crew will use to help deploy the stuck solar wing panel of the orbital workshop. Ke reminded the crew other procedures will have to be changed at the close of the EVA. EVA procedures onboard the spacecraft for day 26 of the mission that would have been a normal EVA to retrieve film from the Apollo telescope mount. At the close of that TVA certain portions of the crew equipment would have been disposed of in the trash airlock. Since the crew will have to go EVA another time to retrieve the Apollo Telescope film, they will dry the LCG, the liquid cool garment the crew will wear when they go out into space atmosphere again. So, on 2 successive passes over Vanguard and Ascension, a total of 19 minutes of assembly instructions

SL-II MC-372/3 Time: 20:08 CDT 13:01:08 GHT 6/5/73

the Skylab space repair crew will get ready for another day of activity discussing with Rusty Schweickart and Ed Gibson tomorrow morning further details on the EVA. Next pass over Guam in 34 minutes. This is Skylab Control. Greenwich mean time 1 hour 14 minutes.

SL-II MC-373/1 Time: 20:27 CDT, 13:01:27 GMT 6/5/73

PAO This is Skylab Control, Greenwich mean time 1 hour 27 minutes. In the provious Ascension pass the crew was asked to - one of the extra details they were asked to lo during the EVA was to take a look at Quad-A. Quad-A is the service reaction control system on the service module and Quad-A is one of four quads on the vehicle. And they could make a visual inspection by standing up in the FAS EVA station. FAS is the fixed airlock shroud in the airlock module. Quad-A is currently about 20 degrees higher than normal. Normally the quad is registering at about 60 degrees, in the midsixties. Current readings show it at about in the mid-80's. The crew will be asked to make a visual inspection at the close of the EVA. At Mission Control Center, Skylab Control, this is Greenwich mean time 1 lour 28 minutes. Next acquisition over the Guam tracking station in 20 minutes. Skylab Control 1 hour 28 minutes.

#L-II NC-574/1 Time: 20:47 CDT, 13:01:47 GMT 6/5/73

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PAO - Guam Island tracking station. During this pass is the standard scheduled evening status report by Commander Pete Conrad. The report consists of the meals the crew ate for the day and also the crew will answer questions passed up to them by teleprinter from the flight controllers here at Mission Control Center. We'll hold the line up for air-to-ground conversations with the Skylab crew.

CC Skylab, Houston through Guam for seven

minutes.

SC Hello.

CDR Hello, Henry we're up to urine separators EVA gear (gerble) just a second and I'll give you the evening status report.

CC Okay.

CDR Okay, Hank, the CDR ate everything plus two butter cookies plus eight optional salts.

CC Skylab, for info we're going to be commanding - or swapping the mission timers in the ATM DC so we can update timer B. It seems to be drifting.

CDR Okay.

The SPT didn't eat his catsup with break-CDR fast because it's spoiled and he are everything else except item (garble) on the snack, orange drink. He had a total DELTA H2O of plus one and no optional sales. The PLT ate everything today except item 62 under snacks, coffee with sugar. He had seven optional salts. Okay the photo log for day 166. We had an M151-1 with CIOH - excuse me - CIO4, 23, MTO1. Now, transporter 04 jammed during the M151-1 and we finished that on transporter 02. And transporter 02 for the M151-1 is CIO5 with now 60 remaining, CIOI. EREP we had a BHO1, 80; and the M131-1 SPT was a CIO3 and we ran her out SP10 and it's empty; 35 millimeter we had a CI3405, a CI2631; 70 millimeter CX06 10; the ETC 119 EREP set Oscar 6707, 6043, 6918, 6914, 9455, 7774, and our configuration of drawer A is 02 CIO5 60 CIO1; A-2 is an 03 Z103 00 MT10; A-3 is an 04 C104 25 Mike Tango 01. And Mike Tango 01 transporter 04 is the one that's jammed. Floating is transporter 05 C125 100 percent MT11. We had no deviations from the flight plan. The stowage is changed considerably in that we have all that EVA gear spread out on topside and we're in a fixed state of flux at the moment. And the inoperable piece of equipment which we are working on is the PLT urine separator and we're in the process of changing the filter at this time.

CC Roger, did you run the malf procedure on

CDR

DR What malf procedure?

CC Roger, that's (garble) waste for number six.

Say again.

CC Waste six.

CDR

44.4

Okay, we've got a few other things for you. CC Just so you're not surprised, we're going to be uplinking tonight a POWER-DOWN procedure for the EVA to minimize the power consumption during the EVA. And we'd like to apologise for the SO82-A thing we hit you with tonight. That's sort of been working behind the lines here and I guess we were kind of waiting until we had a full storage. It coems that the combination of the frames remaining not working and the OPERATE light on all the time - We thought that the camera was working, all the indications were good, but somebody tracked down a single point failure where you'd have all those indications and the camera wouldn't be working so we thought that the safest thing to do would be to change it out while we're out on the EVA. just so we can kind of update you here, we've got a system status in work and what we're going to do is uplink as soon as possible a complete picture of all the systems in here. Things we think you ought to know. And also, one more item, the AH coolant loop, you know we've been bringing up the primary loop every night, well, it seems that we've reached a point where this is not doing any good so we're going to operate on the secondary loop tonight and with automatic switchover ENABLE. And that will be to conserve power. CDR Okay. I gathered because we're at zero-beta that we've gotten to our lowest thermal conditions, is that correct? CC We don't think that's it. I think we've just about reached thermal equilibrium, Pete, is what the story is there on the coolant loop. Gee, you wouldn't think it'd take it this long for the vehicle to stabilize. CC That's affirmative. CDR Okay, now, as beta angle goes back up you think it's going to stay at this temperature? Pay us no mind. Let us know later. CDR CDR Still there, Houston? CC Skylab, Houston. We've got about one minute to LOS. Vanguard's coming up at 26:00 for your medical conference. CDR Okay. Pate, before we lose out here, the general CC concensus here is that we're going to get a little cooler as the beta goes up because it looks like you'll be radiating more to space rather than to the Earth with a high albedo. Caught me in midstream. 1 thought you'd left and I was halfway between here and there. Rog. thank you. CDR Are you still there, Houston? CC That's affirmative.

Okay, systems housekeeping CM-4 is complete.

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Fuel cells did purge.

CC Roger, copy. This is Skylab Control, Greenwich mean PAO time one hour 57 minutes. We've had loss of signal over the Guam Island tracking station. Next pass will be over Venguard in 28 minutes. During the previous pass Cap Com, Hank Hartsfield discussed with the crew the change-out of the 5082-A camera. This came as a surprise to Commander Conxad earlier on the last pass when they advised him he would have to do tha' work during the EVA, but it turns out that the freme counter on the SO82-A and the signal light on the camera have all been not parforming properly, so the ground is taking the position, change the camera out completely while the crew is outside. This is one of the tasks which would have been accomplished on day 26 during a normal EVA. Skylab Control at one hour 58 minutes with next pass over Vanguard in 27 minutes.

SL-II HC-575/1 Time: 21:24 CDT 13:02:24 GMT 6/5/73

This is Skylab Control, Greenwich mean time 2 hours 24 minutes, anticipating acquisition over the Vanguard tracking station, for one of the final AOS's for the crew tonight. Next pass will be over Ascension, at which time the crew will more than likely bid goodnight for the day. We'll hold the line up in the event of conversation between Capcom, Hank Hartsfield and the crew.

CC Skylab, Houston. We got 5 more minutes with you.

PLT Okay, Henry. We got the urine drawer fixed. After we fixed it, we read the malf procedures and decided we pretty much did the right thing, and we fixed it by changing the filter, so it's back in operation and I put it on B channel, but the stowage people should scratch one urine filter from dome 448. I think it was.

CC Roger, copy.

CC Paul, which filter was that you replaced? Was that the fecal filter there, or was that the one that's in the separator cell.

PLT No, that's the urine separator filter, Hank.

CC Okay.

CC CDR, we've got a quickie for you. I was wondering if you'd consider doing a solar inertial EREP pass tomorrow with a hurricane that's off the west coast of Mexico now. What we'd do is use the SPT and PLT with \$193 only and the Nikon with a 300 millimeter lens. And this would take about 5 minutes at 18:57 tomorrow. The \$193, of course, would have to be warmed up for 15 minutes before this time.

CDR Sure, he glad to.

CC Roger, we'll crank that into the flight plan then, as a small Delta.

CDR Okay.

CC Skylab, Houston. We're about 1 minute to LOS. We'll be coming up on Ascension at 40.

CDR Okay, see you there.

PAO This is Skylab Control. Two hours 39 minutes, Greenwich mean time. We have just lost signal over the Vanguard tracking station, with acquisition at Ascension momentarily.

CC Skylab, Houston through Ascansion, 7-1/2 minutes. CDR Go ahead. CC Skylab, Houston. Our apologies for tho evening questions. We've been busy working the EVA stuff that's gotta go up tomorrow and we haven't got them ready yet. We'll get them up as soon as we can, and you can put them on Channel B at your leisure. SPT Okay, no sweat. As a matter of fact. Henry, we're probably going to sleep in tomorrow, because what Pete wants to do is make sure that we get this gear together and that we understand how it operates and talk over the procedures a little bit. So, rather than tackle that first thing in the morning, we're gonna make sure we got it squared away tonight, and if that means going to bad late, we'll get up late. CC Roger. SPT How about giving the station pass times til about 11:30 to 13:00 tomorrow, will you, please? CC Okay, I -PLT Have you got those? CC I can get them shortly. PLT Okay. CC Skylab, Houston. Wa're mulling over what you just said there, you know, we've got a pretty good block of time set up tomorrow morning to go through this thing with all the EVA guys. A lot of those guys have already gone home and I wouldn't be able to support tonight. We'd like to do as much of it as possible during the block of 3 hours we've got tomorrow morning. PLT We're gonna do it then, Hank. We just want to make sure that we have straight in our minds what's going on, so that we can ask more meaningful questions in the morning. We didn't want to talk to anybody else any more tonight. CC Oh, okay, copy, and those -CC Okay, and those times tomorrow. have a pass at Madrid right at - Madrid and Canary's right at 11:00, and Honeyauckle is the next one at 11:45. PLT Yeah, okay. If we get up after that just look for A (garble) CC Wilco. MCC Skylab, Houston. SPT Go shead.

MCC Yesh. Are you guys gonna cut some rope tonight?

SPT That's what we're doing right now.

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Wait a minuta. Let me give you a MCC clue on that. You may have already discovered, when you cut that TBI, it begins to fray very, very rapidly on the end. The people in crew systems discovered that if you wrap where you want to cut with tape and then cut through the tape, it stays very nice and nest and that'll help you a great deal.

PLT (garble) all kinds of help, Hank, but I've asked these other guys, but -e got - figured it out. Thank you, anyway.

MCC Okay. PLT (garble: MCC (garble)

MCC If you got anything else you want to

know, just ask the question. We got a few minutes.

PLT Okay,

SPT Hey, Rusty, I'd still like to hear you describe briefly, in what direction and what manner you put the pole together.

MCC Okay, EV 1 gets out into the FAS, and you begin to assemble the pole, starting with the mushroom end first. You've already got the tushroom on one of the poles and you start that one out. You put four poles or all five poles together and then you put the cutter on the end of the fifth pole. And EV 1 passes it in exactly the same direction we do erecting the MSSC sail. That is you pass it right down parallel to the double handrail. have to be a little bit careful in that you don't have EV 2 out there. But once you get it put together, you put it on the temporary stowage hook there - you have to - the cissor mechanism on the cutter on the temporary stowage hook, and it stays in place very nicely and it can't hurt anything out there.

SPT Does he pay line as he goes Okay.

then?

That's negative. When EV 2 moves up MCC to the A-frame by the discone antenna and EV 1 passes it back up to him, he then begins to pay out line.

MCC Okay, I probably dropped out there, Skylab.

Where did we leave you?

SPT You left me on my way up to the A-

frame.

MCC Okay. After you get to the A-frame. EV 1 begins to pass it cutter-end first up through the trusses to you, and as he starts to put it up through the trusses, he begins to deploy the clothesline around it at that point, so that when it comes up past you, Joe, you'll

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have the pole and the two lines running down. And when EV 1 gets to the first pole, he cinches the line around the two pronged tool so that when it gets up to you, it's all one piece.

Okay, thank you. Very good, and I don't have any more questions right at the moment, Rusty, MCC Okay.

SPT We've got that pole rigged here in the OWS and we're clutched up tieing the knots to it right now.

MCC Okay, fine. Let me say one other thing, since you're tieing knots. When you tie the 32 foot PBI rope on to the 6 foot rope, the bridle -

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SCHWRIKART Let me say one other thing since you're tying knots. When you tie the 32 foot PBI rope onto the 6 foot rope, the bridle, we're suggesting you use a bow in there to allow it to blip through rather than a slip knot. And we suggest that you make the loop in the bow quite small so that in case one of the hooks lets go at the bottom of the - of the vent module - that it can't slip through that knot and release all that energy.

SPT Roger, Pete understands.

MCC Okay. And if you've got time to listen Joe, let me tell you the technique about cutting with those cutters on the end of that long pole.

SPT Please go shead.

MCC Okay, when you get to cutting the strap, and we'll talk a little more about the detailed procedure tomorrow, but when you get to cutting the strap, we found that once you've got the cutters cinched around what you want to cut, that you really don't need to compress the pole. That is you don't need to pull the rope and push the pole. You can simply hold on to the rope and pull it, so that you are actually pulling on what you are cutting. Do you understand what I mean?

SPT Yeah, we understand that. There is another question. Have you tried this technique of partly biting into something (garble) on a stable end point for our EVA trail?

MCC Yes sir, and it works very very well, and until we decided to try that, we were really flailing around very badly out there. Dick Gordon came to mind more than once.

SPT Okay.

onds from LOS. We'll be here if you need us. We'll say good night now. Just a couple of seconds ago we picked up what looks like maybe some problems with CBRM 17. We're going to keep an eye on it. We hope we don't have to wake you up for it. We'll be looking for a 10,000 on the D.S in the morning and we will not call you.

SPT Roger that Houston, and good night all.

PAO This is Skylab Control. Greenwich mean time 2 hours 59 minutes. As we have loss of signal over the Madrid tracking station. We heard Capcom Hank Hartsfield advise the craw there seems to be a problem with CBRM 17. That's Charger Battery Regulator Module number 17, which is presently producing 4 amps less than all the other

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CBRMs on board. And the regulator output is also 4 amps less. The crew, the flight controllers will look at it during the next pass over Guam. And at 3 hours Greenwich mean time, this is Skylab Control.

F31-11 NG-376/1 **Time: 22:22 CDT, 13:03:22 GHT 6/5/73

This is Skylab Control, Greenwich mean time three hours 22 minutes. We are approaching the Guam Island tracking station for a nine minute 34 second pass. We will leave the line up for any possible conversations between Cap Com Hank Harstfield and the Skylab crew. PAO This is Skylab Control, Greenwich mean time three hours 34 minutes. As the Skylab space station crossed over the Guam Island tracking station on it's 324th revolution. Apparently the crew is bedded down for the evening. There was no conversation between the Skylab space station and Mission Control Center. We have the daily medical bulletin from Dr. Charles Ross, Skylab Flight Surgeon. Following a medical conference with the crew on the Ascension pass on the previous revolution, and the report is as follows: The Skylab crew has no medical problems which precludes making an EVA on Thursday. They continue to eat and take fluid well. crew has had sufficient time to maintain their personal exercise programs. The Science Pilot has reported some intermitent maif wakefulness because of the sleep cap which he wears when he performs the M-133 sleep experiment. Today's activities included 3-1/2 hours of Apollo telescope operations, the fifth EREP pass which began at the Idaho-Nevada border, crossed the Rocky Mountains, down across Texas, the Gulf Coast and into Mexico. Discussions were had with the crew today between Rusty Schweickart and Ed Gibson, backup crew members for Skylab 2, concerning assembly and fabrication of the tools necessary to do the EVA on Thursday morning. Wednesday's program - Wednesday's flight plan has several hours scheduled for EVA simulations in the morning with two TV passes possible tomorrow. And the EVA sims are scheduled to last approximately four hours. For sky-watchers in the Houston area, tomorrow morning June 6th, the spacecraft will be visible, skies permitting at 5:39 a.m. on a pass from west to north. It will be visible for four minutes and 14 seconds at an elevation of 15 degrees. This is Skylab Control at Greenwich mean time three hours 37 minutes. The next report will be 6:00 a.m. central daylight time June 6th. Skylab Control signing off at Greenwich mean time three hours 37 minutes.

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mean time 3 hours 47 minutes. Clarification on the CBM problem, which was discussed on the last Madrid Canary pass. CBRM number 17 was showing approximately 4 amps less on a regulator output as compared to the other 16 CBRMs that are on board working at this time. CBRM 3 and CBRM 15 have been out for the last several days. And the latest status is CBRM 17 shows 4 amps less than the other CBRMs. Plight controllers in the Mission Control Center will continue to monitor this particular CBRM throughout the night. There is no plans at this time to wake the crew up or further discussions on this problem. At Greenwich mean time 3 hours 48 minutes, this is Skylab Control.